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manifold distributes the ionized gas uniformly over the substrate, said gas injection system further including an injection tube and a supply tube in communication with said injection tube, said injection tube having a plurality of orifices through which the ionized gas is delivered in said processing chamber, said supply tube for delivering the ionized gas to said injection tube, wherein said supply tube has a larger diameter than said generator tube such that the gas undergoes dissociation within said supply tube.

Please enter the following new claims:

78. (New) The reactor according to Claim 63, wherein said gas injection tube comprises a quartz tube.

79. (New) The reactor according to Claim 63, where said supply tube comprises a quartz tube.

80. (New) The reactor according to Claim 63, wherein said gas injection assembly includes at least two gas injection tubes, one of said gas injection tubes injecting a first gas in said processing chamber, and a second of said gas injection tubes injecting a second gas in said processing chamber, and said gas injection assembly ionizing at least one of said first and second gases into a gas plasma for injecting into said processing chamber.

81. (New) The reactor according to Claim 63, wherein said plasma generator includes a generator tube and a coil inducing an electromagnetic field in said generator tube to ionize the gas flowing through the generator tube, and said generator tube directing the ionized gas to said gas injector for injecting into said processing chamber.

82. (New) The reactor according to Claim 63, wherein said orifices are uniformly spaced along said elongate tube.

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83. (New) The reactor according to Claim 63, wherein said housing includes a cover, said gas injector being supported in said cover.

84. (New) The reactor according to Claim 63, further comprising a heater for heating the substrate in said processing chamber.

85. (New) The reactor according to Claim 63, wherein said heater is enclosed in a heater housing, said heater housing being supported in said reactor housing.

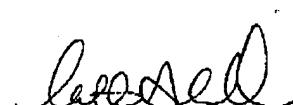
86. (New) The reactor according to Claim 63, wherein said heater housing provides support for the substrate in said reactor housing.

Respectfully submitted,

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